

REMARKS

The Examiner's reconsideration of the application is requested in view of the amendment of claim 1 above and comments which follow.

Turning first to the amendment of claim 1, that change is being made in order to delete a clause that, upon reconsideration, may be unduly limiting. The change is not in relation to the Examiner's rejection of the claims as contained in the Office Action of February 26, 2003.

Turning now to the Office Action, the Examiner's indication of the allowability of the subject matter of claims 6-11, 13 and 14 is gratefully acknowledged. However, it is believed that all claims are in condition for allowance, and the Examiner's reconsideration of the rejection of claims 1-5, 12, 15 and 16 under 35 U.S.C. § 102 as being anticipated by Tamura U.S. Patent No. 4,442,355 is requested since it is submitted that the Examiner's analysis and application of Tamura is incorrect.

The apparatus shown in Tamura does not have a chamber sealed by electrically conductive barrier means in such a way as to allow a partial vacuum to be maintained in the chamber, as required by claim 1. Thus, Tamura does not anticipate or render obvious the subject matter of claim 1.

The Examiner has mistakenly identified the component denoted by reference numeral 11 as a chamber. In fact, component 11 is a shield sleeve or pipe that is open-ended at its front end (i.e. end nearest to the optical axis 2), to enable secondary electrons 6 to reach the scintillator attached to the front end of the light pipe 7.

The Examiner has further mistakenly identified the component denoted by reference numeral 11 as an electrically conductive barrier sealing the chamber in such a way as to allow at least a partial vacuum to be maintained in the chamber. As already stated, the component 11

is an open-ended sleeve or pipe, which would be incapable of sealing a chamber so as to allow at least a partial vacuum to be maintained in the chamber.

Moreover, if, as asserted by the Examiner, the shield sleeve did seal the chamber, the devices shown in Figures 1 of 3 of Tamura would not function correctly.

Figures 2 and 3 of Tamura show devices of which the optical axes are surrounded by grounded pipe electrodes 12 and 16, respectively. These grounded electrodes prevent any electrical field due to the accelerating ring electrodes 9 from being established along that part of the optical axis enclosed by the pipe electrodes 12 and 16, which electrical field would otherwise cause deflection of the primary electron beam.

The shield sleeves 11 would similarly prevent any electrical field due to the accelerating ring electrodes 9 from being established between the shield sleeves 11 and pipe electrodes 12 and 16, if the apertures were not present. In that case the secondary electrons 6 would not be drawn towards the light pipes 7, nor would they be able to penetrate the shield sleeves 11 to reach the light pipes 7, and the devices would therefore not function correctly.

Claim 1 is therefore not anticipated by Tamura or obvious thereover, and should be allowed.

Claims 2-5, 12, 15 and 16 depend from claim 1, and are therefore submitted to be allowable. The Examiner has already acknowledged the allowability of claims 6-11, 13 and 14.

Thus, it is submitted that the entire application is in condition for allowance, and the Examiner's further and favorable reconsideration in the regard is urged.

Formal drawings have been prepared, and are being submitted herewith.

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Respectfully submitted,

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